# Bureau of Chemical and Environmental Services
# Metals Testing

## Metals Section

Metals are usually found in water, soil, and hazardous waste samples. These metals usually appear in very low concentrations (parts per billion, or micrograms per liter, µg/L) compared to other chemicals which may be 1,000 times higher in concentration (parts per million). Metals such as Selenium, Arsenic, Mercury, and Lead can have toxic effects on the environment and upon public water supplies. Our laboratory routinely monitors public water supplies and watershed for trace metal spills.

EPA has set drinking water limits for 10 trace metal chemicals. The metals section is quite busy, having two ICP (Inductively Coupled Plasma) and three ICPMS (Inductively Coupled Plasma Mass Spectrometry) instruments for metals determination.

The Metals Section has been certified by EPA to determine metals using the following methods: EPA 6010 ICP Metals in water and wastewater, EPA 7473 Mercury by Thermal Decomposition Amalgamation and Atomic Absorption, EPA 7471A Mercury in Solid Waste, EPA 245.1 Mercury by Cold Vapor Atomic Absorption Spectrometry, EPA 200.7 Cations By ICP, EPA 200.8 Metals by ICPMS, EPA 6020 Metals in Soil by ICP, SM 3114 C Selenium by Hydride Atomic Absorption Spectroscopy, EPA 1311 Toxicity Characteristic Leach Procedure, and EPA 6010 C
Total Metals in Soils and Sludges.

For more information on metals in Drinking Water, please see
http://www.epa.gov/ebtpages/watedrinkingwater.html, and for more information on metals in the environment see http://www.epa.gov/ebtpages/pollutants.html.